

Progress to Net Zero for Oil & Gas Companies





SPE London

16th April 2024

sustainable actions risk - emissions - engagement



London SPE Net Zero Programme 12.30-13.30, 16th April 2024



Progress to Net Zero for oil and gas companies

Topics:

- Response to rising climate litigation
- Increasing reporting requirements
- Emissions reductions vs MER
- Missed Net Zero targets
- Emission reduction technologies
- Starting the Net Zero journey



Dr. Amanda Turner Principal Consultant



Introducing Amanda





Clyde Petroleum



QINETIQ



















The sustain: able Team



Dr Rachel Gavey (she/her) Co-Founder & Commercial Director



Dr Amanda Turner (she/her) Strategy & Project QC



Dr Rosalie Constable (she/her) Co-Founder & Technical Director



Alison Isherwood (MEng)
(she/her)
GHG Emissions
& ESG Advisory



Dr Charlie Watson (he/they) Reporting Frameworks & Emissions Expert



Emily Hieatt
(she/her)
Digital &
Administration



Robinson Ododa (he/him) Environmental Expert & GHG Emissions



Lee Billingham (CEng)
(he/him)
Engineering Advisory
& Risk



Wide oil & gas and energy background – previously worked as geologists, engineers, commercial, environmental specialists for operators and service companies globally

Service Streams - Advisory & Due Diligence



Same expertise - varying application



Company Advisory

GHG emissions

ESG strategy

Frameworks

Implementation

Communications



Due Diligence

Emissions scrutiny & Net Zero claims

Benchmarking

ESG strategy review

Impact of investing

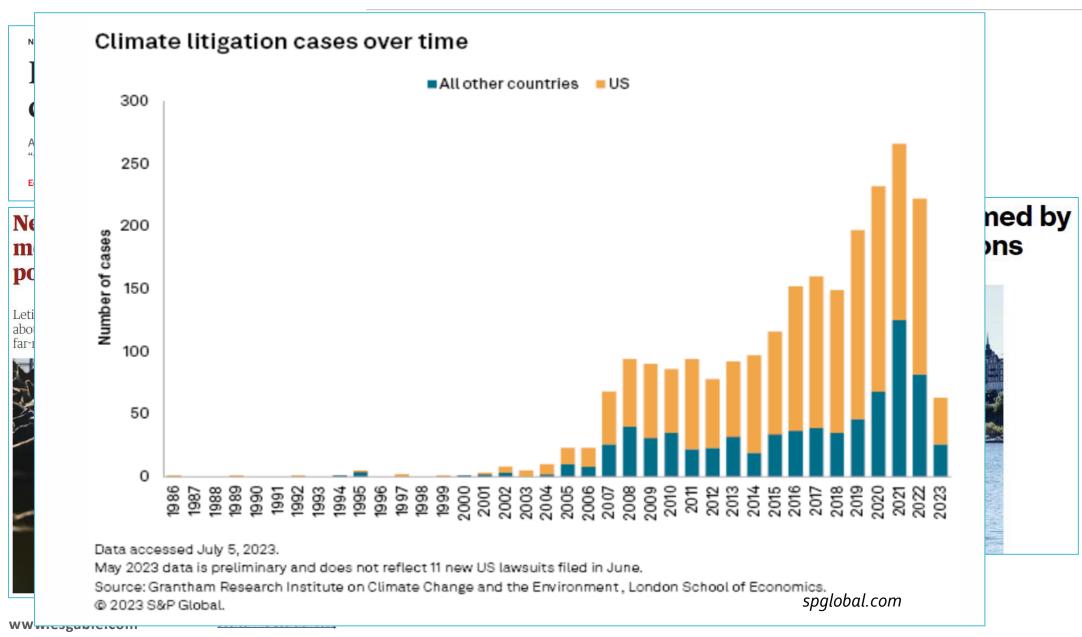
Supply chain risks



Trends and challenges

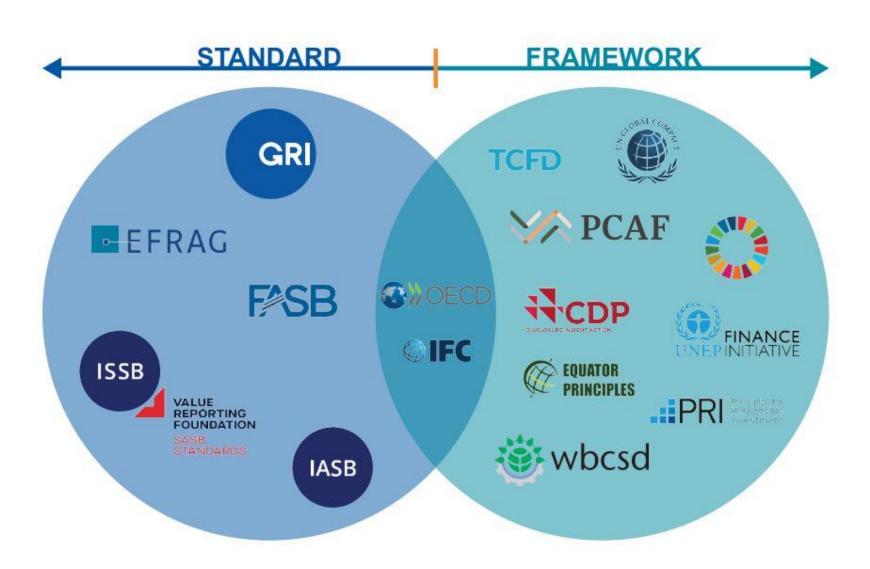
Climate litigation is on the rise





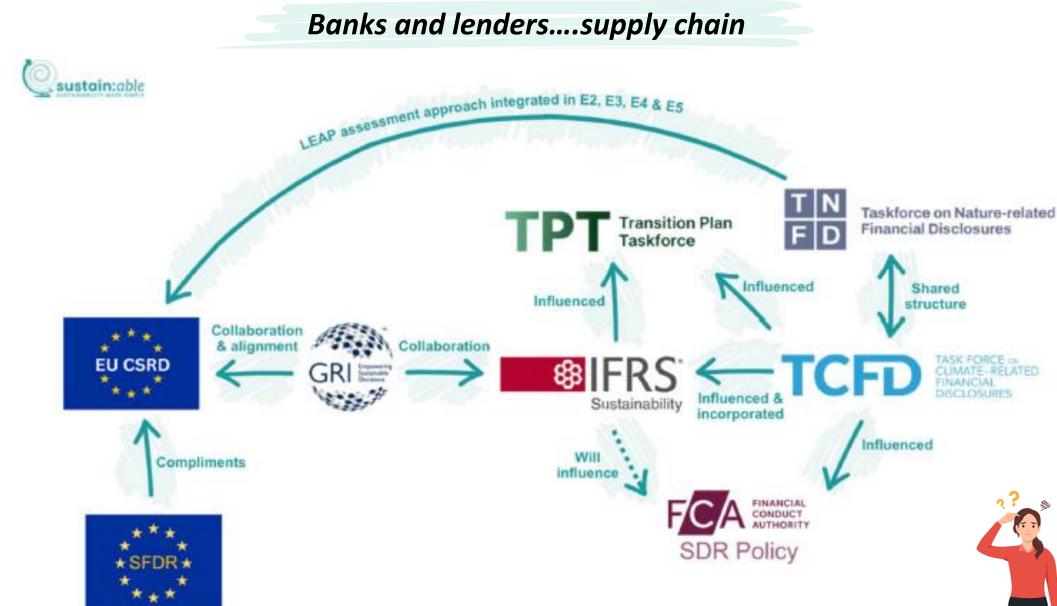
Increasing regulatory requirements





Increasing regulatory requirements





Increasing regulatory requirements



Corporate Sustainability Reporting Disclosures (CSRD) - EU

Jan 2023

Mandatory reporting on **Scope 3 in EU**:

- 2024/25 Large Listed Companies
- 2025/26 Large non-listed
- 2027 Listed SMEs



ISSB IFRS S2 Climate-related disclosures - Global

June 2023

Currently **voluntary** - individual jurisdictions considering

Requires **Scope 3** reporting.



Transition Plan Taskforce (TPT) – UK/Global

Oct 2023

Currently **voluntary** - UK **FCA** have proposals that include TPT

Requires reporting across ALL scopes



Security Exchange Commission (SEC) - US

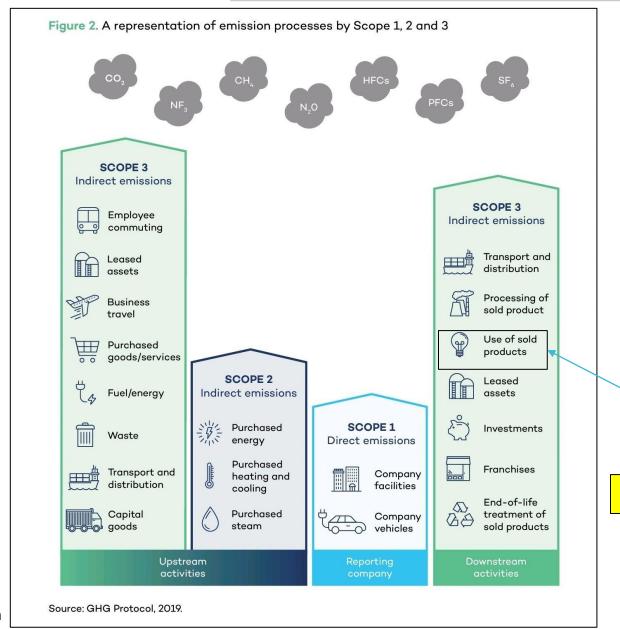
Released March 2024

Scope 3 reporting where material



Scope 3 reporting is on the rise





"someone else's
Scope 1 and 2"
Which are material
to your company?

More than just this!

Prioritise *material* Scope 3 emissions

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Scope 3 reporting is on the rise – Peer review



Company	Any Scope 3 reporting	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Α																
В																
С																
D																
E																
F																
G																
Н																
1																
J																
K																
L																
M																
N																
0																
Р																
Q																
R																
% Reporting	56%	39%	11%_	28%_	33%	22%_	33%_	17%_	0%_	22%_	17%_	44%_	_6%_	_0%	6%_	11%

	Scope 3 Categories						
1	Purchased Goods and Services						
2	Capital Goods						
3	Fuel- and Energy-related Activities Not Included in Scope 1 or Scope 2						
4	Upstream Transportation and Distribution						
5	Waste Generated in Operations						
6	Business Travel						
7	Employee Commuting						
8	Upstream Leased Assets						
9	Downstream Transportation and Distribution						
10	Processing of Sold Products						
11	Use of Sold Products						
12	End-of-Life Treatment of Sold Products						
13	Downstream Leased Assets						
14	Franchises						
15	Investments						

Double Materiality becoming the norm



Builds the base for your ESG activities - defendable

"Outside-in" perspective



Double Materiality Principle

A company's impact on people & the environment

"Inside-out" perspective







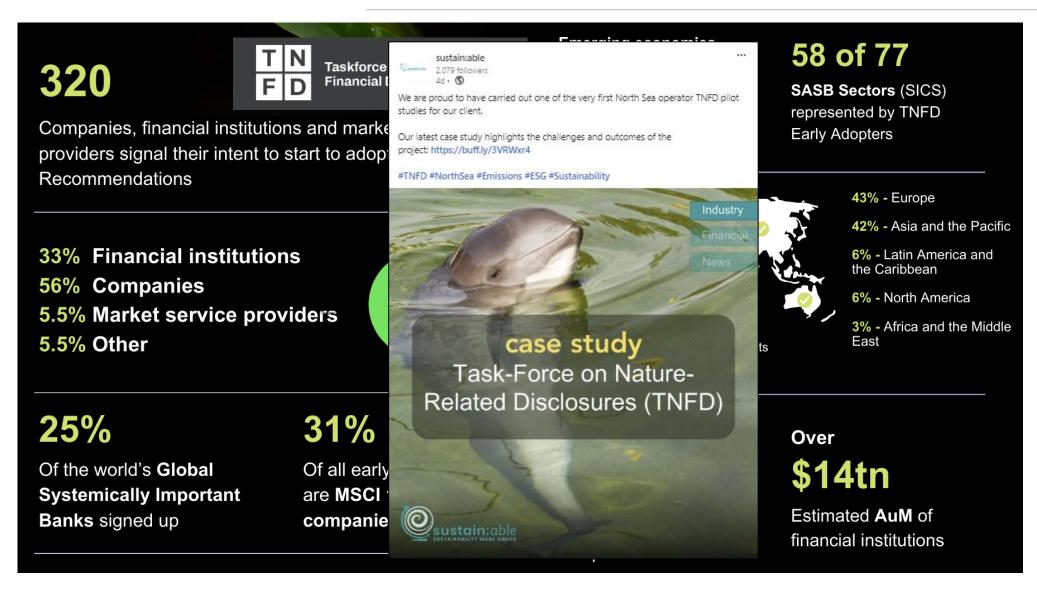






Biodiversity reporting rapidly increasing





OGA Plan – Key points (1)





OGA Plan to reduce UKCS greenhouse gas emissions

Date of publication 27 March 2024

- Rapid and sustained reductions in oil and gas production emissions continues to be essential
- Takes appropriate steps to assist the Secretary of State in meeting the net zero target by reducing GHG emissions from sources such as flaring and venting and power generation and supporting carbon capture and storage projects
- Should also consider the societal costs of emissions in their overall decision making
- Emissions offsetting will not be considered towards meeting the obligations in the Plan

OGA Plan – Key points (2)





OGA Plan to reduce UKCS greenhouse gas emissions

Date of publication 27 March 2024

- NSTA expects investments to reduce GHG emissions across their O&G extraction operations
- Should produce an ERAP for each asset and a SCAP
- New developments (from 2030) must be either fully electrified or run on alternative low carbon power
- Provide a documented method with split of projected flaring and venting figures to support delivery of zero routine flaring and venting from 2030
- Deliver continuous reductions of fugitive emissions

Emissions reductions v MER (Maximising Economic Recovery)



The Plan, Central Obligation 2:

Relevant persons must, in the exercise of their relevant activities, take the steps necessary to: a. secure that the maximum value of economically recoverable petroleum is recovered from the strata beneath relevant UK waters;

Page 4, Section 4:

Relevant persons must give due consideration when planning, commissioning and constructing infrastructure in a way that meets the optimum configuration for maximising the value of economically recoverable petroleum that can be recovered from the region in which the infrastructure is to be located;



Electrification overview:

In addition to electrification, the NSTA will also consider other forms of low carbon power consistent with Maximising Economic Recovery ('MER') where relevant persons present credible evidence that near equivalent emissions reductions will be achieved

Increase in 'missed' Net Zero targets



BP dials oil profits

The energy giant is aimin 40 percent

By Evan Halper and Aaron Greg Updated February 7, 2023 at 11:41

Danone board ousts Emmanuel Faber as chief and chairman

Activist investors have been attacking the French consumer group since January





Climate pivot b

By Ron Bousso, S

February 10, 2023 5:

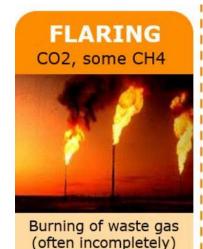
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Emissions Reduction Technologies

Emissions reduction technologies





at key oil and gas

processing facilities





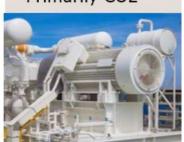
Deliberate release of methane at tanks, valves, pumps, compressors etc.

LEAKING



Accidental release of methane at wells, pipelines, etc.)

OPERATING
Primarily CO2



Gas used in operations to power facilities

GHG abatement options to consider

Measurement and Monitoring





Operational 'behavioural' Changes



Implementation of New Technology

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Emissions Reduction Technologies 1: Venting



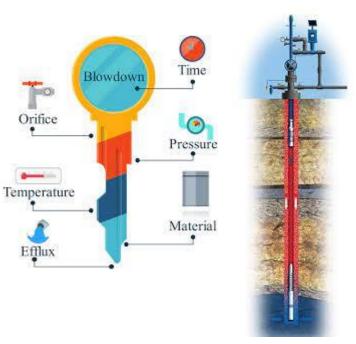


Venting Emissions Reduction Technologies

- Flare the gas rather than vent it
- Capture the gas and reuse
- Vapour Recovery Unit
- Blowdown capture
- Install Plunger lift







Emissions Reduction Technologies 2: Flaring





Flaring Emissions Reduction Technologies

- Flare the gas more efficiently
- Capture the flared gas and reuse
- Compressed Natural Gas (CNG)Technology
- Liquid Natural Gas (LNG)Technology
- Small scale Hydrogen production
- Small scale Gas to Chemical production



Emissions Reduction Technologies 3: Fugitive emissions / Leaks





Fugitive Emissions Reduction Technologies





- Preventative maintenance
- Dry gas seals







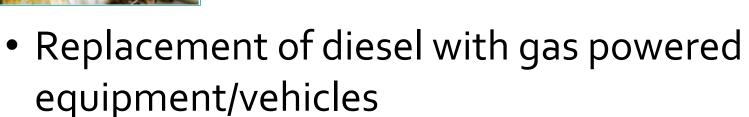


Emissions Reduction Technologies 4: Operations





Operations Emissions Reduction Technologies





- Electrification of equipment using renewable energy
- Carbon capture and storage
- Capture exhaust gas and use heat to drive steam turbines



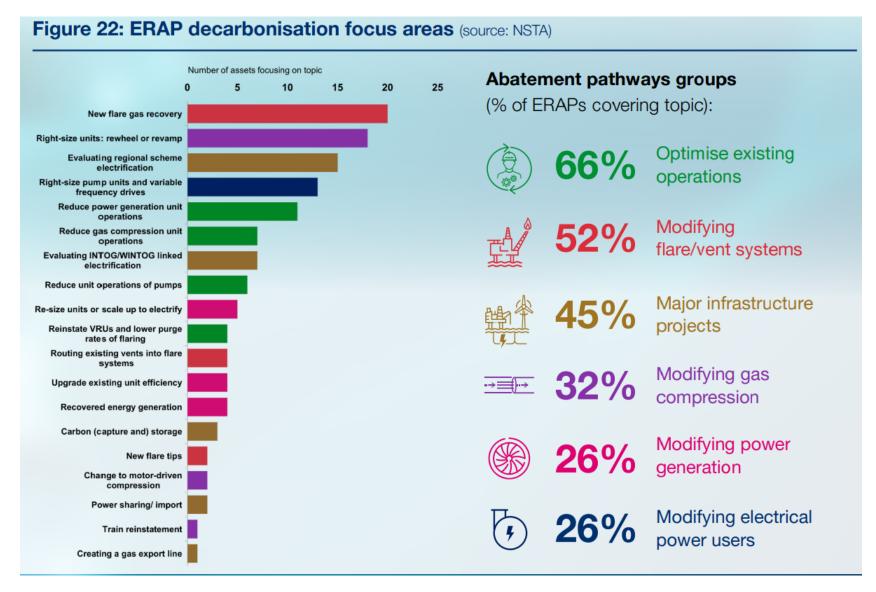




Emissions reduction technologies



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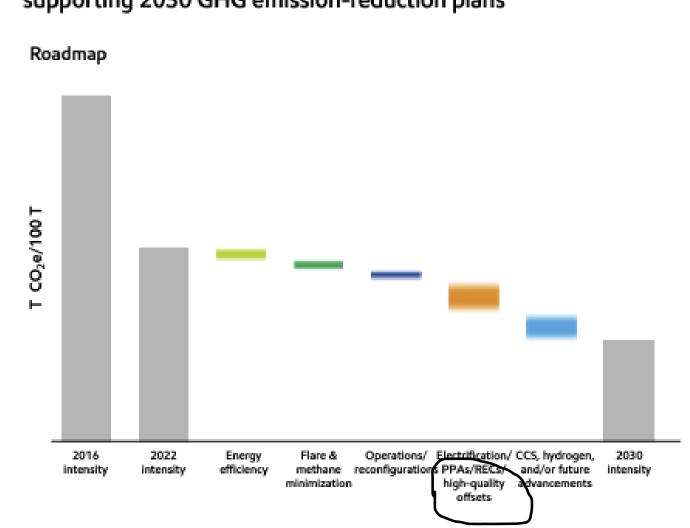


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Offsetting



Potential GHG abatement options for ExxonMobil operated assets supporting 2030 GHG emission-reduction plans²⁰





Source: The Guardian 2023

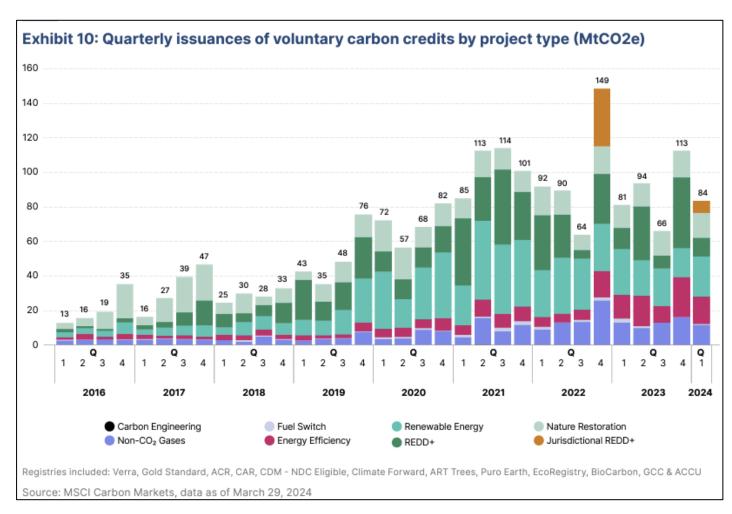


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Source: ExxonMobil 2024

Offsetting





Climate target organisation faces staff revolt over carbon-offsetting plan

Employees at SBTi have called for their CEO to resign over controversial plans which they fear will enable greenwashing



Source: The Guardian 2024

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Getting it right

Base any ESG activities on risk and impact



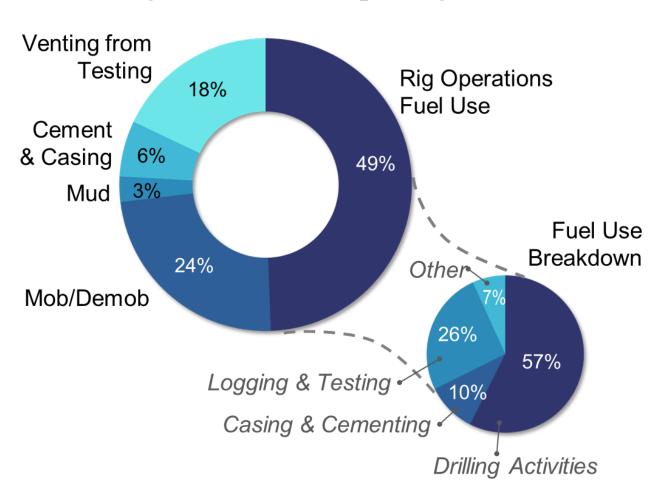


- ✓ Define
- ✓ Risk / impact
- ✓ Defendable

Know your data - prepare to report asap



Exploration Well CO₂e footprint [1]



- ✓ All ESG related data
- ✓ Emissions Scope 1 & 2and 3
- ✓ Give yourself time:
 - ✓TCFD to IFRS/ISSB
 - **✓** CSRD
 - ✓TNFD?

[1] Calculations based on analysis of actual exploration well by sustain:able

Defendable Net Zero / emissions reduction plans





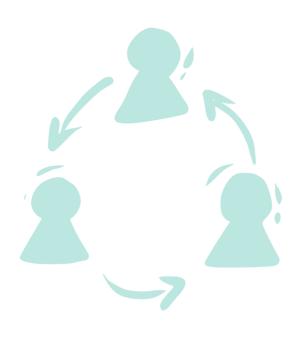
- ✓ All options explored evidence
- ✓ Realistic
- ✓ Back up with data and action





An ESG strategy is only as effective as its uptake





- √ Communication internal / external
- ✓ Role identification within strategy
- ✓ ESG targets into KPI's



Thank you for your time!

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